

CLAIMS

1. Method of cooking with steam in a cooking oven (1) equipped with a steam generator (2, 4) comprising a water evaporation vessel (201) and a heater unit (200) in thermal contact with said water evaporation vessel (201), the method including a cooking phase (CS) during which feeding of water to said water evaporation vessel (201) is regulated and being characterized in that said water feed regulation comprises the steps of:

detecting an increase (At) of a temperature (TB) in said heater unit (200), and

triggering feeding of water to said water evaporation vessel (201) when said temperature increase (At) is detected.

2. Steam cooking method according to claim 1, characterized in that a temperature increase (At) corresponding to the evaporation of a predetermined quantity of water contained in the water evaporation vessel (201) is detected in said step of detecting a temperature increase in order to trigger said feed of water.

3. Steam cooking method according to claim 1 or claim 2, characterized in that it further includes a step of first feeding water to said water evaporation vessel (201) at the beginning (T0) of said cooking phase (CS).

4. Steam cooking method according to any one of claims 1 to 3, characterized in that said temperature increase (At) is detected if said temperature (TB) exceeds a predetermined first threshold temperature (T1).

5. Steam cooking method according to claim 4, characterized in that said first threshold temperature (T1) is significantly higher than a stabilization temperature (T0) in said heater unit (200) reached when said water evaporation vessel (201) contains water and said heater unit (200) is heating said water evaporation vessel (201).

6. Steam cooking method according to claim 5,

characterized in that said first threshold temperature (T1) is from approximately 110°C to 130°C and/or said stabilization temperature (T0) is from approximately 100°C to 120°C.

5           7. Steam cooking method according to any one of claims 4 to 6, characterized in that a deactivation of said heating unit (200) as a safety measure is decided on the basis of said first threshold temperature (T1) and/or a safety threshold temperature (T2) being exceeded in said  
10 heater unit (200)..

8. Steam cooking method according to any one of claims 1 to 7, characterized in that water is fed by opening a water feed circuit (21, 22, 23) for a predetermined time (D0).

15           9. Steam cooking method according to any one of claims 1 to 8, characterized in that water is fed by gravity.

10           10. Steam cooking method according to any one of claims 1 to 9, characterized in that it also includes, in a steam evacuation phase (EV), a step of continuing to heat said water evaporation vessel (201) until detection of a temperature increase (Atr) indicating that any water remaining in said water evaporation vessel (201) has completely evaporated.

25           11. Steam generator, in particular for a cooking oven, including a water evaporation vessel (201), a heater unit (200) in thermal contact with said water evaporation vessel (201) and means for regulating feeding of water to said water evaporation vessel (201), characterized in that  
30 said water feed regulation means include:

means for detecting (203) an increase (At) of a temperature (TB) in said heater unit (200), and

means for commanding (40, 23) feeding of water to said water evaporation vessel (201) if said temperature  
35 increase (At) is detected.

12. Steam generator according to claim 11, characterized in that said temperature increase detector means include means (203) for indicating that a first threshold temperature (T1) is exceeded in said heater unit (200).

13. Steam generator according to claim 11 or claim 12, characterized in that it also includes means (204) for indicating that a second threshold temperature (T2) is exceeded in said heater unit (200).

14. Steam generator according to claims 12 and 13, characterized in that said means for indicating that a first threshold temperature (T1) has been exceeded and said means for indicating that a second threshold temperature (T2) has been exceeded respectively comprise a temperature sensor (203) and a temperature limiter (204).

15. Steam generator according to any one of claims 11 to 14, characterized in that said water feed control means include a solenoid valve (23) and a control circuit (40) adapted to command opening of said solenoid valve (23) for a predetermined time (D0) if it receives from said temperature increase detector means (203) information indicating detection of said temperature increase (At).

16. Steam generator according to claim 14, characterized in that said temperature sensor (203) and said temperature limiter (204) are mounted on said lower portion of said block of material in thermal contact with said block of material.

17. Steam cooking oven, characterized in that it implements a steam cooking method according to any one of claims 1 to 10.

18. Steam cooking oven, characterized in that it includes a steam generator (2, 4) according to any one of claims 11 to 16.

19. Steam cooking oven according to claim 17 or claim 18, characterized in that it includes:

a temperature probe (30) for measuring an enclosure temperature (TR) inside an enclosure (3) of the oven (1), and

5 a control circuit (4, 41) for regulating said enclosure temperature (TR) by controlling said heater unit (200) as a function of a set point temperature (CS) and information supplied by said temperature probe (30).